

REMARKS

Claims 26 and 30 are amended, no claims are canceled or added; as a result, claims 1-30 remain pending in this application.

Claim 26 is amended to clarify the claim by correcting a minor typographical error in the claims. Specifically, the word "is" is corrected. This amendment does not narrow the scope of the claim. This amendment was not made in response to any substantive rejection of the claim.

Claim 30 is amended to clarify the claim by bringing the claim into closer accord to U.S. practice by revising the preamble. Specifically, the claim is clarified in its preamble to be directed to a computer readable medium. This amendment does not narrow the scope of the claim. This amendment was not made in response to any substantive rejection of the claim.

Double Patenting Rejection

Applicant was advised that should claim 29 be found allowable, claim 30 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. Applicant traverses this rejection. Obviously, these claims are not duplicates as claim 29 is a dependent claim and it includes the elements of its parent claim 28. Withdrawal of this objection is requested.

§102 Rejection of the Claims

Claims 15-17, 19-22 and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kumar (U.S. Patent No. 6,046,960). Applicant respectfully traverses a *prima facie* case of anticipation has not been made.

Claim 15 recites, *inter alia*, "wherein the at least one expectancy range is determined in consideration of the temporal behavior of at least two past filling level echoes or false echoes." Applicant can not find these features in Kumar. Accordingly, applicant requests reconsideration and allowance of claim 15 and its dependent claims 16-17, 19-22 and 26.

The office action refers to column 3, lines 20-38, column 6, lines 20-23 and claims 8-15 of Kumar for a teaching of "wherein the at least one expectancy range is determined in consideration of the temporal behavior of at least two past filling level echoes or false echoes" as recited in claim 15. However, column 3, lines 26-28 of Kumar state that "Time variable threshold detection techniques suffer from the need for repetitive transmissions and also the

unpredictability of the true and false echo envelopes (underlining added).” Accordingly, Kumar explicitly states that time (temporal) detection techniques are unpredictable. In contrast, claim 15 includes structure that determines an echo expectancy range based at least in part on temporal behavior of two prior echoes. Referring now to column 6, lines 20-23 of Kumar, it states “The digitized echo profile for the transmit/receive cycle is then stored in a temporal manner in a memory device 66 which may conveniently be realized in the form of a dual . . .” This passage in Kumar does not teach structure that determines an echo expectancy range based at least in part on temporal behavior of two prior echoes as recited in claim 15. Referring now to claims 8-15 of Kumar, these claims do not teach any structure that determines an expectancy range in consideration of the temporal behavior of at least two past filling level echoes or false echoes as in claim 15. Accordingly, Kumar does not teach the structure recited in claim 15. As such, applicant requests reconsideration and allowance of claim 15 and its dependent claims 16-17, 19-22 and 26.

§103 Rejection of the Claims

Claims 1-14, 18, 23-25 and 27-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable Kumar (U.S. Patent No. 6,046,960). Applicant respectfully traverses a *prima facie* case of obviousness has not been made.

The Examiner rejected claims 1-14, 18, 23-25 and 27-30 based only on Kumar. Applicant respectfully traverses the single reference rejection under 35 U.S.C. § 103 since not all of the recited elements of the claims are found Kumar. Since all the elements of the claim are not found in the reference, Applicant assumes that the Examiner is taking official notice of the missing elements. Applicant respectfully objects to the taking of official notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, Applicant respectfully traverses the assertion of Official Notice and requests that the Examiner cite references in support of this position.

The Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to modify reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002). The Office Action states “Kumar explains in great detail, and discloses in

the specification and the claims a method for determining true and false echoes whereby the steps of determining said echoes utilizes a method very similar to the one claimed,” which is a mere conclusory statement of subjective belief, so Applicant respectfully submits that the Office Action has not provided objective evidence for a suggestion or motivation to alter Kumar to read on the present claims. The above statement does not distinctly point to where Kumar teaches the features of the claims.

Moreover, the Office Action does not show where Kumar teaches all of the features of claim 1. Claim 1 recites, *inter alia*, “determining at least one expectancy range for a filling level echo or false echo in consideration of the temporal behavior of the identified at least one first filling level echo or false echo and of the identified at least second filling level echo or false echo.” This feature is not found in Kumar. The Office Action points to column 7, lines 1-4 for a teaching of this feature. However, this passage of Kumar does not teach any determining step as recited in claim 1.

Further, this passage of Kumar does not teach “in consideration of the temporal behavior” of a first echo and a second echo as recited in claim 1. Instead of determining in consideration of temporal behavior, Kumar merely verifies using a time domain window after the peak energy position is located. Kumar does not determine as recited in claim 1. As Kumar does not teach or even suggest all of the features of claim 1, applicant requests withdrawal of the rejection thereof.

The Office Action states that this passage of Kumar would “indicate an expectancy range is determined.” However, there is no reasoning behind this conclusory statement. Accordingly, the office action has not made a *prima facie* case of obviousness.

Applicant respectfully submits that a *prima facie* case of obviousness has not been made with respect to claim 1. Accordingly, claim 1 and its dependent claims 2-14 should be allowed. Reconsideration is respectfully requested.

Still further applicant submits that Kumar teaches away from the presently claimed invention. Specifically, Kumar at col. 3, line 26-28, states that “Time variable threshold detection techniques suffer from the need for repetitive transmissions and also the unpredictability of the true and false echo envelopes (underlining added).” Claim 1 specifically recites “determining at least one expectancy range . . . in consideration of temporal behavior.” Accordingly, the claim 1 recites, and the specification teaches that what Kumar teaches in

unpredictable (undeterminable). As such, Kumar teaches away from the present invention.

Reconsideration and allowance of claims 1-14 are requested.

Claims 18 and 23-25 depend from claim 15 and are allowable for at least the reasons stated above with regard to the anticipation rejection, which is based on the same reference as the present obviousness rejection.

Claim 28 recites, *inter alia*, “determining the at least one expectancy range in consideration of the temporal behavior of at least two past filling level echoes or false echoes that could have been assigned to a past expectancy range.” For at least the reasons stated above, Kumar does not teach or even suggest these features. Reconsideration and allowance of claim 28 and its dependent claim 29 are requested.

Claim 30 recites, *inter alia*, ““searching individual echoes in the current filling level envelope curve; assigning the detected echoes to expectancy ranges determined in the past for a filling level echo or a false echo; in the case that an echo is assigned to the expectancy range for the filling level, determining the filling level using said echo; and when the array is occupied by echo data, determining a new expectancy range for echoes to be expected in the future.” Kumar does not teach these features. Accordingly, claim 30 is allowable over Kumar.

Request for Examiner Interview

The undersigned requests an examiner interview if the above rejections based on Kumar are not withdrawn. A telephone call from the examiner at the time of examination may assist in moving the present application toward allowance. Any such telephone conference would probably discuss how the present application is directed to prognosticating the expectancy range based on prior echoes (see e.g., abstract) whereas Kumar measures peak energy echoes with the higher energy being the true echo (see e.g., claim 8 of Kumar).

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9587 to facilitate prosecution of this application.

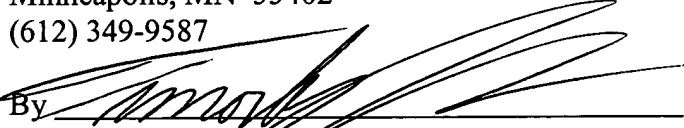
If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,
ROBERT LAUN
By his Representatives,
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 349-9587

Date

11 July '05

By


Timothy B. Clise
Reg. No. 40,957

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 11 day of July, 2005.

CANDIS BUENDING

Name

Signature

